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## TAXONOMY
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# ON SOME NEW SPECIES OF AFRICAN PTEROSTICHINI (COL.) PART 2

By S. L. Straneo.

(*Parma, Italy.*)

### **Abacetus conradsi** sp. n.

Long. 5·4 mm.; max. lat. 1·9 mm. Colore brunneo obscuro, saltem nigrescente, elytris semper clarioribus, saepe omnino brunneo-ferrugineo; pedibus flavo-ferrugineis, antennis brunneo-ferrugineis, articulo quarto parum obscuriore, palpis ferrugineis; subtus brunneus, sternitibus ultimis et sterno clarioribus. Caput regulare, oculis modicis, sat convexis; temporibus nullis, sulcis frontalibus brevissimis, fortissime divergentibus, primum porum supraocularem non attingentibus; antennis modice elongatis, basim pronoti parum superantibus, sat subtilibus; articulis quarto et sequentibus pubescentibus. Pronotum trapezoidale, long. 1·2 mm.; max. lat. 1·5 mm.; lateribus sat fortiter rotundatis usque ad ¾ longitudinis, inde subsinuatis; lat. ant. 1·5 mm.; lat. bas. 1·5 mm.; angulis anticis ad collum sat admotis, non prominentibus, obtusis, parum rotundatis; angulis posticis modice obtusis, apice dente parvo instructo; canaliculo laterali angusto, poris setigeris binis regularibus praedito; basi non punctata nec rugosa, ad latera marginata, utrinque unisulcata, sulcis parum elongatis, sat subtilibus, modice impressis, fere rectis et parallelis; disco parum convexo, linea media elongata, sat angusta sed distincte impressa. Elytra subparallelo-ovalia; long. 5·4 mm.; max. lat. 1·9 mm.; sat fortiter dilatata post humeros, dein subparallela; maxima latitudine in media longitudine; humeris bene determinatis, sed apice rotundato; margine basali humeros versus modice curvatis; striis sat profundis, levibus; interstitiis parum convexis; tertio poro in media longitudine praedito; apice elytrorum parum acute rotundato. Subtus omnino levis, non punctato; prosterno obtuso, non sulcato, processu plano, non marginato; sternite anali maris puncto singulo, feminae punctis binis utrinque instructo. Pedes regulares; tibiis anticis calcare simplici, non trifido; tarsis mediis et posticis supra non striolatis, extus sulcatis; onychio subtus glabro. Microsculptura pronoti isodiametrica fortiter impressa, elytrorum transversa sat lata et conspicua; subtus microsculptura isodiametrica fere undique fortiter impressa.

Habitat: Lake Victoria: Ins. Ukerewe (*P. A. Conrads*).

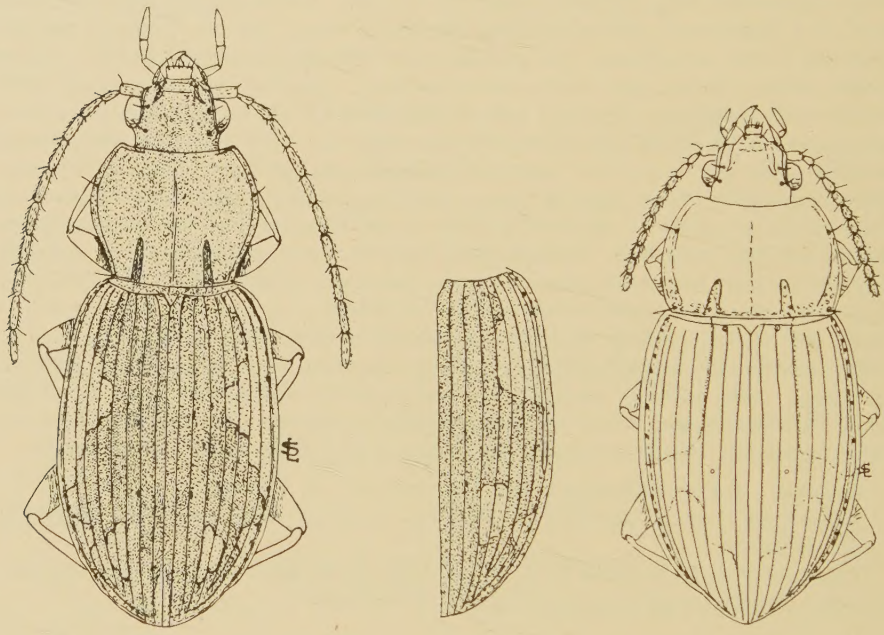
Holotypus ♂ et 4 paratypi in coll. van Emden; allotypus et 2 paratypi in coll. Straneo.

This new species is allied to *A. nanus* Chaud., which is considerably smaller. *Abacetus conradsi* varies in size from 5·0 to 6·0 mm.

### **Chlaeminus variegatus** sp. n. (fig. 9).

Long. 6·4 mm.; max. lat. 2·6 mm.; colore capitis et pronoti supra viridi metallico, elytrorum nigrescente cum maculis flavis ut in figura conformatis; antennis et palpis ferrugineis labro et ore rufescentibus; pedibus flavis, praeter genua, apicem tibiarum et tarsorum leviter infuscata; subtus pro- et metasterno nigro-brunneis plus minusve rufescentibus; abdomine rufescente, sternitibus semper clarioribus, sternitem analem versus; corpus supra omnino punctis finissimis et creberrimis et pubescentia subtili et curta obtectum, ut in speciebus asiaticis generis *Chlaeminus*. Caput modicum, leviter nitidus; oculis sat amplis, modice convexis, temporibus fere nullis; sulcis frontalibus brevibus, fortiter divergentibus primum porum supraocularem versus; antennis longis, subtilibus, filiformibus, articulis tribus ultimis basim pronoti superantibus, articulo secundo ut in gen. *Abacetus* irregulariter inserto; articulis tertio et sequentibus fortiter pubescentibus, etiam primo et secundo setis sparsis instructis. Pronotum sat amplum; long. 1·6 mm.; max. lat. 1·9

mm.; lateribus sat fortiter et regulariter rotundatis usque ante basim, dein subsinuatis; lat. ant. et lat. basis 1·35 mm.; margine antico parum excavato; angulis anticis obtusis, parum prominentibus, apice non rotundato; posticis modice obtusis, apice dente parvo instructo; canaliculo laterali angusto, punctis setigeris binis regularibus praedito; basi non magis punctata quam disco, inter sulcos et latera marginata; disco modice convexo, linea media subtili et sat elongata. Elytra ovalia; long. 4·0 mm.; max. lat. 2·6 mm.; humeris omnino rotundatis, margine basali integro, subtili, humeros versus parum rotundato; striis sat profundis, interstitiis modice convexis, tertio poro singulo, post dimidiam longitudinem posito, praedito, septimo poro conspicuo praeapicali instructo; apice elytrorum sat regulariter rotundato. Subtus proepisternis levibus, prosterno forti sulco longitudinali preadito, processu mediocriter marginato, metepisternis longis, antice, intus et extus sulcatis, lateribus metasterni leviter punctatis; sternitibus leviter pubescentibus, sternite anali maris puncto singulo, feminae punctis binis utrinque instructo. Pedes sat elongati subtilesque; tarsis supra pubescentibus, tarsis anticis maris oblique truncatis; onychio subtus setis subtilibus praedito.




Figs. 9–11.—9. *Chlaeminus variegatus* sp. n.; 10. *C. senegalensis* sp. n. elytra; 11. *Celioschesis maculata* sp. n.

Habitat: N.W. Rhodesia: Kashitu; Lukanga (*H. C. Dollman*).

The holotype and many paratypes of this interesting species are in the British Museum; the allotype and some paratypes in coll. Straneo.

This species is the first described *Chlaeminus* belonging to the African fauna. All the other species are found in the Indian and Malayan Regions.

I have in my collection two examples of another African species belonging to the genus *Chlaeminus*; and I have found two other examples of the same species among the undetermined *Abacetus* of the coll. Alluaud (Muséum

National, Paris) : one of these last examples, which lacks an elytron, is labelled " Chlaeminus Nodieri Oberth. i. litt." I describe this new species below.

**Chlaeminus senegalensis** sp. n.

Very closely allied to *Chlaeminus variegatus* ; and I think it sufficient to indicate the measurements of the various parts of the body and the most important differences.

Long. 5·2 mm.; max. lat. 2·0 mm.; long. pronoti 1·1 mm.; max. lat. 1·4 mm.; lat. anter. 0·9 mm.; lat. bas. 1·0 mm.; long. elytr. 3·2 mm.; max. lat. 2·0 mm.

A *Chlaemino variegato* differt statura minore; elytrorum striis minus distincte crenulatis; elytrorum maculis flavis diversis, ut in fig. 10 conformatis; colore macularum et antennarum parum obscuriore.

Though these differences are rather slight, they are very constant. The two species are undoubtedly distinct.

Holotypus ♂ et allotypus in coll. Straneo; 2 paratypi in Muséum National, Paris (coll. Alluaud).

Habitat: Ivory Coast: Dimbroko (Holotype); Haut Senegal: Khayes (*Dr. Nodier*).

The place assigned by Csiki to the genus *Chlaeminus* in Junk's *Coleopterorum Catalogus* is quite incorrect.

This genus is very nearly allied to *Abacetus* Dej., from which it differs chiefly in the segments of the anterior tarsi of the ♂ which are obliquely truncate, as in *Loxandrus* Lec. All the other characters can be found in different species of the genus *Abacetus* : viz. : the punctation and pubescence of the upper surface of the body is present also in *Abacetus pubescens* Dej., *tschoffeni* Tschit., *palustris* Péring., *gerardi* Burg., etc.; the pubescence of the upper side of the tarsi is present also in *Abacetus stenoderus* Motsch., *piliger* Chaud., *pilosellus* Péring., *gerardi* Burg., etc.; yellow patches of the elytra are also found in *A. quadrisignatus* Chaud. etc., *distigma* Tschit. (I mention only African species.)

**Celioschesis maculata** sp. n. (fig. 11).

Long. 5·5 mm.; max. lat. 2·3 mm. Colore nigro, pronoti disco brunneo plus minusve obscuro, margine laterali, margine basali et margine anteriore partim ferrugineo; elytris 4 maculis flavo-ferrugineis, ut in figura positis, praeditis; antennis, palpis, pedibus et ore ferrugineis. Caput regulare, oculis convexis, sat amplis, temporibus nullis, sulcis frontalibus sat brevibus, dimidiam oculorum longitudine non attingentibus, modice divergentibus; antennis robustis, parum compressis, articulis 6–10° submoniliformibus, parum longioribus quam latioribus, articulis 4° et sequentibus pubescentibus. Pronotum transversum, sat convexum; long. 1·2 mm.; max. lat. 2·0 mm.; lat. ant. 1·2 mm.; lat. bas. 1·7 mm.; lateribus antice fortiter, postice mediocriter rotundatis; angulis anticis perparum prominentibus, obtusis, apice rotundato; posticis obtusis, distincte rotundatis; basi ad latera subtilissime marginata, utrinque unisulcata, punctis sat amplis sed raris et levissimis praedita, etiam in sulcis et in canaliculo laterali; sulcis basalibus brevibus, linearibus; canaliculo laterali antice sat angusto, postice fortissime dilatato, poris setigeris binis usitatis praedito; disco convexo, linea media fere indistincta. Elytra sat convexa, ovalia; humeris rotundatis, margine basali integro, stria scutellari nulla, striis sat profundis, finissime, fere indistincte crenulatis, interstitiis parum convexis, fere planis, tertio poro parvo post mediam longitudine praedito, 7° poro parvo apicali instructo, serie umbilicata fortissime rarefacta in medio. Subtus prosterno non sulcato, processu non distincte marginato, proëpisternis levibus, metepisternis longis, postice fortiter constrictis, mediocriter punctatis, sternitibus primis ad latera leviter punctatis, caeteris levibus; sternite anali

maris puncto singulo, feminae punctis binis praedito. Pedes ut in caeteris speciebus generis *Celioschesis*.

Habitat: Mombasa (*Miss E. M. Sharpe* 1895–8) (*teste* Staudinger) (holotype); N.W. Rhodesia: Kashitu et Nama-Ula (*H. C. Dollman*) : 10 examples.

Holotypus ♂ et 3 paratypi in coll. Straneo; allotypus et 6 paratypi in British Museum.

I know of no species of this genus with which this new species can usefully be compared.

**Cyrtotelus major** sp. n.

Long. 11·6 mm.; max. lat. 4·6 mm. Colore brunneo, obscurissimo, fere piceo in exemplis perfectae maturitatis, nitido, elytris iridescentibus; pedibus et antennis brunneo-ferrugineis, articulo primo antennarum et femoribus parum clarioribus. Caput regulare, leve, oculis sat parvis, modice convexis, postice inclusis in temporibus, non inflatis et valde et gradatim digradantibus; sulcis frontalibus brevibus, parum profundis, antennis sat subtilibus, parum compressis, articulis duobus apicalibus basim pronoti superantibus; articulis 4° et sequentibus pubescentibus. Pronotum subrectangulare, long. 3·0 mm.; max. lat. 4·0 mm.; lat. ant. 2·6 mm.; lat. bas. 3·8 mm.; lateribus modice rotundatis et sat constrictis antice; postice perparum constrictis, fere parallelis; angulis anticis distincte prominentibus, posticis rectis apice rotundato; margine antico distincte arcuatim excavato, canaliculo laterali angustissimo, lineari, poris setigeris binis usitatis instructo; basi non punctata, fere recta, tantum in medio leviter excavata, non marginata, utrinque sulco parvo, lineari, fere indistincto, marginem posticum non attingenti, praedita; disco parum convexo, linea media vix distincta. Elytra ovalia, sat convexa, praecipue apicem versus; long. 6·4 mm.; max. lat. 4·6 mm.; humeris fere rectis, dente distincto praeditis; margine basali integro, fere recto, vel perparum curvato; stria scutellari nulla; striis modice profundis, interstitiis perparum convexis, fere planis; interstitio tertio poris nullis praedito, septimo poris binis parvis praeapicalibus instructo; apice elytrorum sat breviter rotundato. Subtus prosterno leviter longitudinaliter sulcato, processu plano, non marginato nec depresso; proepisternis leviter ondulatis, non punctatis; metepisternis subquadratis, punctato-rugosis; sternitibus primis ad latera punctis sat crebris et rugis levibus obtectis; caeteris levibus, non punctatis; sternite anali maris anguste marginato, secundum apicem, poro singulo utrinque praedito, sat amoto a margine apicali. Pedibus regularibus, mediocriter elongatis; onychio subtus glabro. Aedeagus post bulbum basalem abrupte et recte flexus, dein rectus; apice rotundato, perparum torto, leviter dejecto. Microsculptura capitis isodiametrica, pronoti et elytrorum transversa, punctis impressis profundis et parvis commixta.

Habitat: S. Africa: Pondoland, Port St. John (*R. E. Turner*) 5 ♂♂.

Holotypus et paratypi in British Museum; paratypi in coll. Straneo.

This new species is very easily recognisable by the size. It is larger than any other known *Cyrtotelus*; the pronotum is rather strongly transverse.

**Cyrtotelus elongatus** sp. n.

Long. 10·5 mm.; max. lat. 3·9 mm. Colore nigro piceo, leviter brunnescente, elytris iridescentibus; sterno et abdomine rufo-ferrugineis; antennis, palpis, pedibus et ore ferrugineis. Caput sat parvum, elongatum, oculis parvis, modice convexis, temporibus brevissimis, fere nullis, sulcis frontalibus brevissimis, mediocriter impressis, primum porum setigerum supraocularem non attingentibus; antennis sat subtilibus, modice compressis, vix basim pronoti attingentibus, articulis 4° et sequentibus pubescentibus. Pronotum rectangulare, long. 2·9 mm.; max. lat. 3·4 mm.; margine antico leviter excavato, lateribus antice modice rotundatis et mediocriter constrictis, postice fere rectis, perparum conver-

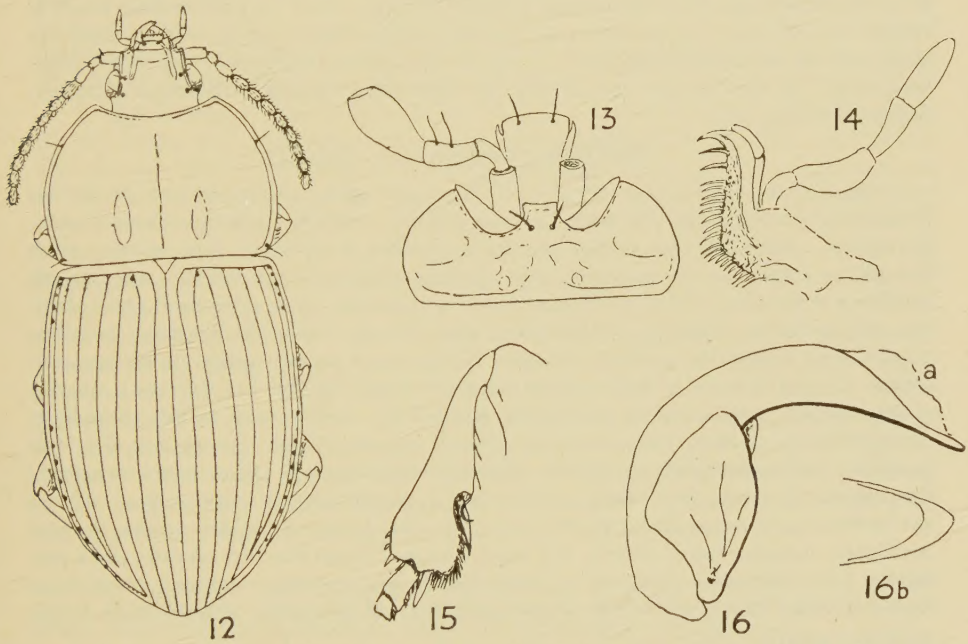
gentibus; angulis anticis parum prominentibus, apice leviter rotundato, posticis levissime obtusis, fere rectis, apice vix rotundato; canaliculo laterali angustissimo, poris setigeris binis usitatis praedito; basi non punctata, convexa, non marginata; utrinque unisulcata; sulcis basalibus $\frac{2}{3}$ longitudinis pronoti attingentibus, parallelis, rectis, modice impressis, postice marginem pronoti non attingentibus; disco modice convexo, linea media fere indistincta. Elytra ovalia, convexa; long. 6·1 mm.; max. lat. 3·9 mm.; basi tam lata quam basi pronoti; lateribus post humeros gradatim et permodice dilatatis, maxima latitudine ad $\frac{2}{3}$ vel $\frac{1}{3}$ longitudinis; humeris quadratis, margine basali modice curvato humeros versus; striis profundis, levibus, interstitiis convexis, tertio poro nullo praedito; serie umbilicata leviter rarefacta in medio; apice elytrorum sat acute rotundato. Subtus prosterno leviter impresso, processu non marginato; proepisternis levibus, metepisternis parum longioribus quam latioribus, punctis levissimis praeditis; sternitibus primis sat crebre sed leviter punctatis, caeteris levibus; sternite anali levi, maris puncto singulo, feminae punctis binis praeditis. Pedes regulares, onychio glabro, articulo basali tarsorum posticorum extus sulcato.

Habitat: NATAL: Kloof, 1500 ft. (*R. E. Turner*) 1 ♂ et 1 ♀.

Holotypus ♂ in British Museum, allotypus in coll. Straneo.

Compared with the preceding species, it is smaller, more angustate; the interstices of the elytra are more convex than in any other species of this genus.

All the species of *Cyrtotelus* are very closely allied. A key will be found in my revision of the South African Pterostichini, to be published in the *Annals S. African Mus.*




FIGS. 12–16.—*Oodinkosa crassula* gen. et sp. n. 12, *Oodinkosa crassula*, type; 13, labium; 14, maxilla; 15, anterior tibia; 16, aedeagus, a, profile, b, apex.

**Oodinkosa** gen. n. (figs. 12–16).

Suboodiforme. Caput parvum, in pronoto sat inclusum, post oculoss at constrictum, glabrum, clypeo bisetoso, setis binis supraorbitalibus; antennis brevibus, articulis 6–10°

submoniliformibus, 4° et sequentibus pubescentibus, articulo primo non scapiformi, tertio longitudine subaequali; labro antice fere recto, sex-setoso; mandibulis brevissimis et sat latis, apice subtili et brevissime curvato, scrobis seta nulla instructis; ligula lata, bisetosa, apice truncato, paraglossis membranaceis, sat subtilibus, liberis, ligula non longioribus; maxillis brevibus, ad apicem fortiter curvatis et acuminatis, intus basim versus sat crebre, apicem versus perparum ciliatis; palpis sat brevibus, glabris, articulo ultimo maxillarium ovato-fusiformi, labialium sat dilatato et ad apicem truncato, articulo paenultimo labialium bisetoso: mento brevi, lobis sat divergentibus, epilobis instar dentis lobos valde superantibus, dente medio sat prominente, apice lato et truncato, non bifido nec excavato. Pronotum transversum, lateribus bisetosis, margine laterali non subtili, canaliculo angusto. Elytra ad basim margine integro et forti praedita, 9-striata, stria scutellari nulla, stria secunda poro parvo basali instructa, interstitio tertio impunctato, serie umbilicata post humeros late interrupta. Subtus levis, praeter metepisterna; prosterno non depresso nec sulcato, processu late marginato, postice sat acute rotundato, sed non carinato; sternitibus non sulcatis, sternite anali apice sat late marginato, in ♂ et ♀ poro singulo utrinque praedito. Pedes sat breves, tibiis anticis sat fortiter compressis et latis apicem versus, ut in figura instructis; tarsis supra glabris, non pubescentibus, subtus setis regularibus, non crebris praeditis; onychio subtus glabro; tarsis anticis maris articulis tribus basalibus dilatatis et subtus squamulosis.

Genotypus: *Oodinkosa crassula* Stran.

The position of this very interesting new genus is not yet well defined. The peculiar characters place it undoubtedly in the Pterostichini-group; and it is certainly allied to the genus *Inkosa* Péring.; but in *Inkosa* the head is rather exceptional, the abdomen is very strongly sculptured, the ligula and the mentum are otherwise formed. I think the genus *Oodinkosa* must be provisionally placed in the proximity of *Cyrtotelus* Tschit., *Metaxys* Chaud., *Inkosa* Péring., etc.

**Oodinkosa crassula** sp. n. (fig. 12).

Long. 11·0 mm.; max. lat. 4·8 mm. Colore nigro nitido undique iridescente, leviter brunnescente in exemplis non perfectae maturitatis; antennis, palpis pedibusque rufo-ferrugineis. Caput parvum, oculis parvis, temporibus brevissimis, non inflatis, sulcis frontalibus subtilibus, sat impressis, non sinuatis, modice divergentibus; antennis sat subtilibus et brevibus, parum compressis, basim non attingentibus, articulis 4° et sequentibus pubescentibus. Pronotum transversum, long. 2·7 mm.; max. lat. 4·5 mm.; lateribus regularissime rotundatis, maxima latitudine basim versus posita; antice sat fortiter constrictis (lat. ant. 2·4 mm.); basim versus perparum constrictis (lat. bas. 4·1 mm.); angulis anticis modice prominentibus, rotundatis, posticis fere rectis, apice leviter rotundato; margine laterali modice spisso, canaliculo laterali angusto, lineari, punctis setigeris binis praedito; basi non punctata, fere recta, utrinque impressione levi, parum impressa notata; disco modice convexo, linea media brevi et subtili, parum dilatata basim versus. Elytra sat brevia et convexa, ovalia; long. 6·5 mm.; max. lat. 4·8 mm.; humeris quadratis, apice rotundato; margine basali integro, fere recto, humeros versos fere non curvato, striis profundis, fere indistincte crenulatis in fundo, interstitiis convexis. Subtus metepisternis brevibus, extus brevioribus quam antice latioribus, sat punctatis. Caeterum ut in descriptione generis.

Habitat: Uganda: Mabira forest, Kagwe (*C. C. Gowdey*): 3 examples.
Holotypus ♂ et paratypus in British Museum; allotypus in coll. Straneo.

# THE QUESTION OF THE WORK IN WHICH TEN GENERIC NAMES IN THE LEPIDOPTERA RHOPALOCERA HITHERTO ATTRIBUTED TO FABRICIUS WERE FIRST PUBLISHED IN 1807; A CASE FOR DECISION BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

By Francis Hemming, C.M.G., C.B.E., F.R.E.S.

## I. Introductory.

In writing the present paper, I have had a two-fold object in view. My first object has been to draw attention to the fact that ten well-known generic names in the Lepidoptera Rhopalocera hitherto invariably regarded as having been published for the first time by Fabricius in 1807 in Illiger's *Magazin* were published also in the same year in the *Allgemeine-Literatur Zeitung* of Halle in a paper which, though anonymous, was certainly written by Illiger[1]; and to assess the evidence available on which to reach a decision as to which of the above papers was the first to be published. My second object has been to provide the material required to enable this case to be considered by the International Commission on Zoological Nomenclature. Incidentally the present paper gives preliminary and informal notice to the zoological profession that it is proposed to ask the International Commission finally to dispose of this case by the issue of an Opinion under "Suspension of the Rules."

2. My attention was drawn to the problem discussed in the present paper by my friend and correspondent, the late Dr. Foster H. Benjamin, who had an almost unrivalled knowledge of the early literature relating to the Lepidoptera, of which for many years he had made a special study. Dr. Benjamin first wrote to me on this subject with reference to my treatment of certain generic names in volume 1 of my *Generic Names of the holarctic Butterflies* which had been published by the British Museum (Natural History) in the latter part of 1934; and his object in so raising the question was to enable me to devise some suitable solution of the problem prior to the publication of the second volume of my book the preparation of which I had then temporarily laid aside in order to make a special study of the manuscripts of Jacob Hübner, which had recently come to light. I was still in correspondence with Dr. Benjamin on this subject at the time of his premature and much regretted death in January 1936. Six months later outbreak of the Civil War in Spain, and my duties as Secretary to the Non-Intervention Committee made it impossible for me to give any further thought to this matter till the present time.

[1] The following very interesting observations on this point are quoted from a letter dated 27th February 1935, which I received from Dr. Foster H. Benjamin, of the United States Department of Agriculture, Bureau of Entomology, Washington :—

"As regards the A.L.Z. paper . . . re authorship—obviously Illiger—by obtaining other issues of the A.L.Z. seeing that the style of all entomological reviews therein before 1809 is identical with that of Illiger's Magazine, comparing papers and seeing that those discussed in detail in the latter are casually discussed in the former, and vice versa, it becomes evident that the A.L.Z. (prior to 1809) and Illiger's Magazine supplemented and complemented one another, no one but Illiger could have written on so many different groups in such a manner if we exclude Fabricius and Panzer (the former excluded by the wording of the 1807 paper on Hübner, the latter by his own introduction which comments on Illiger and the A.L.Z.)."

## II. Statement of the Case.

3. In volume 6 of the *Magazin für Insektenkunde* (*Illiger*), the title page of which is dated 1807, there appeared an article (pp. 277, 278) entitled "Die neueste Gattungs-Eintheilung der Schmetterlinge aus den Linnéischen Gattungen *Papilio* und *Sphinx*," to which was attached a synopsis (pp. 279–289) of the characters of 49 genera entitled "Schmetterlings-Gattungen. A. Nach Fabricii Systema Glossatorum Tom. I." The article itself was anonymous, but there is practically no doubt that it was written by Illiger. The synopsis of genera was, as the title shows, taken from Fabricius' unpublished *Systema Glossatorum*, and it is therefore perfectly correct to attribute to Fabricius the new generic names included therein and not to Illiger or whoever was the anonymous author of the article beginning on p. 277. M. Felix Bryk has recently (1938) edited a facsimile (published by the Verlag Gustav Feller, Neubrandenburg) of one of the two surviving proof copies of Fabricius' unpublished *Systema Glossatorum*, in which all the 49 genera mentioned in the synopsis given in Illiger's *Magazin* are given in a preliminary Key ("*Characteres Generum*") which includes also a fiftieth name for a genus of butterflies (*Casinia* Fabricius) which did not appear in the synopsis in the *Magazin*.

4. In the issue dated 19th December 1807 of the *Allgemeine-Literatur Zeitung*, which, though normally treated as being of Jena, was in fact at this time published at Halle, there is an anonymous article, which I accept as having been written by Illiger, which contains a detailed review of the first 34 plates of the *Sammlung exotischer Schmetterlinge* published by Jacob Hübner. A facsimile of this article is given on pp. 43–45 of volume 2 of my *Hübner* published by the Royal Entomological Society of London in 1937. In this article each of the species figured on the 34 plates in question is considered critically, and, as explained in a preliminary note, the generic name according to the system of Fabricius is added. In the following table, I give the names of the species figured by Hübner, the number of the plate on which each species is so figured, the genus assigned to each species by Hübner, and the genus of the Fabrician system allotted to each species by Illiger in the review referred to above :—

Generic names applied to the species figured on the first 34 plates published of Hübner's *Samml. exot. Schmett.* by Illiger in his anonymous review of the species so figured which appeared in the issue of 19th December 1807 of the *Allgem. Lit. Ztg, Halle* [*Jena*].

| Name of species. | Pl. no. | Generic name used by Hübner. | Generic name used in *Allgem. Lit. Ztg, Halle* [*Jena*]. |
|---|---|---|---|
| *aetolus* | [102] | *Rusticus* | *Hesperia* |
| *gnidus* | [104] | *Rusticus* | *Helicopis* |
| *demoleas* | [116] | *Princeps* | *Papilio* |
| *hellica* | [141] | *Mancipium* | *Pontia* |
| *fabius* | [148] | *Consul* | *Brassolis* ? |
| *licus* | [150] | *Urbanus* | *Castnia* |
| *thraso* | [151] | *Urbanus* | *Thymele* |
| *proteus* | [155] | *Urbanus* | *Thymele* |
| *niveus* | [159] | *Urbanus* | *Thymele* |
| *cymo* | [2] | *Nereis* | *Hymenitis* |
| *doto* | [1] | *Nereis* | *Hymenitis* |
| *neso* | [5] | *Nereis* | *Hymenitis* |
| *ninonia* | [6] | *Nereis* | *Hymenitis* |
| *polymnia* | [7] | *Nereis* | *Hymenitis* |
| *dianasa* | [8] | *Nereis* | *Mechanitis* |
| *eunice* | [9] | *Nereis* | *Neptis* |

| Name of species. | Pl. no. | Generic name used by Hübner. | Generic name used in *Allgem. Lit. Ztg, Halle* [*Jena*]. |
|---|---|---|---|
| *vesta* | [11] | *Nereis* | *Mechanitis* |
| *thelxiope* | [12] | *Nereis* | *Mechanitis* |
| *thamar* | [15] | *Nereis* | *Mechanitis* |
| *dido* | [17] | *Nereis* | *Mechanitis* |
| *cora* | [25] | *Lemnas* [sic] | *Euploea* |
| *nemertes* | [26] | *Lemnas* [sic] | *Euploea* |
| *halimede* | [27] | *Limnas* | *Eurybia* |
| *leucosia* | [29] | *Limnas* | *Nymphidium* |
| *pharea* | [32] | *Limnas* | *Emesis* |
| *genutia* | [21] | *Limnas* | *Euploea* |
| *zygia* | [35] | *Lemonias* | *Lemonias* |
| *julia* | [43] | *Dryas* | *Mechanitis* |
| *vanillae* | [44] | *Dryas* | *Mechanitis* |
| *amphinome* | [47] | *Hamadryas* | *Apatura* |
| *astina* | [56] | *Hamadryas* | *Brassolis* |
| *themis* | [60] | *Najas* | *Brassolis* |
| *leonte* | [79] | *Potamis* | *Brassolis* |
| *leilaria* | [200] | *Lars* | *Urania* |

5. It will be seen from column 4 of the above table that Illiger distributed the 34 species in question among 17 of what he called genera of the Fabrician system. Of these 17 genera, the names of two (*Papilio* Linnaeus, 1758, and *Hesperia* Fabricius, 1793) were published long before the year 1807, while those of two others (*Urania* and *Castnia*), though regarded by Fabricius in the synopsis given in Illiger's *Magazin* and also in his unpublished *Systema Glossatorum* as being genera of butterflies, are in fact genera of moths. So far as the butterflies are concerned, there are 13 generic names to be considered. Of these, 10 were published also in Fabricius' list in the 1807 volume of Illiger's *Magazin*, while 3 were published for the first time in the *Allgemeine-Literatur Zeitung* on 19th December of the same year. The names are the following :—

| (*a*) Published both by Fabricius in vol. 6 of Illiger's *Magazin*, which is dated 1807, and also by Illiger on 19th December 1807 in the *Allgemeine-Literatur Zeitung* of Halle [Jena]. | (*b*) Published by Illiger on 19th December 1807 in the *Allgemeine-Literatur Zeitung* of Halle [Jena]. |
|---|---|
| DANAIDAE | DANAIDAE |
| *Mechanitis* | *Hymenitis* |
| *Euploea* | |
| BRASSOLIDAE | |
| *Brassolis* | |
| NYMPHALIDAE | |
| *Neptis* | |
| *Apatura* | |
| RIODINIDAE | RIODINIDAE |
| *Helicopis* | *Eurybia* |
| *Nymphidium* | *Lemonias* |
| *Emesis* | |
| PIERIDAE | |
| *Pontia* | |
| HESPERIIDAE | |
| *Thymele* | |

6. It is necessary therefore at this stage to consider what evidence, whether direct or indirect, is available to determine whether or not the article in volume 6 of Illiger's *Magazin* appeared before that in the *Allgemeine-Literatur Zeitung*; and therefore whether Fabricius is the author of the 12 names given in column (*a*) above (as he would be in the former event) or whether Illiger through his review of Hübner's plates is the author of the 12 names in question (as would be the case in the latter event). This is not a matter of theoretical interest only, but is one of great practical importance, since in almost every case the included species in the two papers are different, with the result that, if it proved to be the case that Illiger's review of Hübner's plates was published before the extract from Fabricius' *Systema* given in Illiger's *Magazin*, the type of almost every one of the genera in question would need to be changed. The evidence available on the point at issue is given in the following paragraphs.

7. Illiger's review of Hübner's plates which appeared in the *Allgemeine-Literatur Zeitung* is known to have been published in 1807 on 19th December, since it was included in Number 303 of that journal which bears that date. As regards the article in Illiger's *Magazin*, the volume in question (vol. 6) is dated 1807, and in the absence of definite evidence to the contrary must be accepted as having been published in that year. There is no direct evidence as to what month in that year the portion concerned (pp. 277–289) was published.

8. In paragraph 3 above, I have shown that the title of the article in Illiger's *Magazin* expressly states (p. 277) that the genera (49 in number) given in the synopsis (pp. 279–289) represent the latest revision of the Linnaean genera *Papilio* and *Sphinx*, and that the title to the synopsis shows that this revision was the work of Fabricius. Further, in the same paragraph, I have shown that at the time in 1807 that Fabricius wrote the manuscript of his *Systema Glossatorum* he had slightly modified the ideas set out in the article in Illiger's *Magazin* and had increased the number of genera from 49 to 50. There can therefore be no doubt that the article in Illiger's *Magazin* was not only written but also passed for final printing on some date in 1807 prior to the date in the same year on which Fabricius wrote the manuscript of his *Systema Glossatorum*.

9. Illiger's unsigned article published on the 19th December 1807 issue of the *Allgemeine-Literatur Zeitung* was concerned only with the first 34 plates of Hübner's *Sammlung exotischer Schmetterlinge* and the genera of Fabricius are mentioned only incidentally in relation to the species figured by Hübner on the plates under review. Nevertheless of the 17 Fabrician genera among which (as shown in paragraph 4 above) the species figured on these 34 plates were distributed, there were no less than 3 genera which appeared neither in the article in volume 6 of Illiger's *Magazin* nor in the proof of Fabricius' *Systema Glossatorum*, both of which expressly claimed as at the dates concerned to set out the latest revision by Fabricius of the genera *Papilio* Linnaeus and *Sphinx* Linnaeus. There can therefore be no doubt whatever that Illiger's review of Hübner's plates published on 19th December 1807 in the *Allgemeine-Literatur Zeitung* was written, and therefore printed, subsequent to the date on which the paper in volume 6 of Illiger's *Magazin* was printed and passed for publication, and subsequent also to the date still later in 1807 on which Fabricius sent the manuscript of his *Systema Glossatorum* to the printer.

10. There thus remains one question only for consideration, namely the possibility that the Illiger *Magazin* article, though admittedly written before Illiger's review of the Hübner plates, was nevertheless actually published after the appearance of that review. Both are dated 1807 and the latter is dated 19th December of that year. In order therefore to sustain an argument

that these articles were published in 1807 in the reverse order to that in which they were written, it would be necessary to assume (i) that for some unknown reason the publication of the Illiger *Magazin* was delayed until after 19th December 1807 and therefore took place during the twelve-day period from 20th December 1807 to 31st December 1807; and (ii) that, although by 19th December Fabricius had subdivided the Linnean genera *Papilio* and *Sphinx* into 53 genera (50 given in the proof of the *Systema Glossatorum* which was sent to the printer in 1807 prior to the date on which Illiger wrote his review of Hübner's plates, plus three genera the names of which appeared for the first time in the said review), both Fabricius, as author, and Illiger, as editor of the *Magazin*, allowed the publication of a paper which expressly claimed to give the latest particulars relating to Fabricius' system but which was in fact already out of date and contained only 49 out of the 53 genera which, on the hypothesis here under consideration, he had already adopted.

11. I must, however, add that in correspondence with me the late Dr. Benjamin put forward the view that vol. 6 of Illiger's *Magazin* was published after the close of 1807 (although it bears the date of that year), and therefore that Illiger's review in the *Allgemeine-Literatur Zeitung* was published well before the synopsis of Fabricius' genera given in vol. 6 of Illiger's *Magazin*. Dr. Benjamin based this view upon the following considerations. In the first place, he considered that the fact that volumes 3 and 4 of Illiger's *Magazin* were not reviewed in the *Allgemeine-Literatur Zeitung* until the early part of 1807, and that vol. 5 was reviewed in the same journal later in that year indicated that for some reason the publication of the successive volumes of Illiger's *Magazin* was retarded and did not necessarily take place in the years given on the title pages of the volumes concerned. Dr. Benjamin then drew attention to the fact that in the case of one set of Illiger's *Magazin* preserved in the United States which appeared to be in contemporary binding, volumes 3 and 4 were bound in a single volume. From this he deduced that some cause—perhaps lack of funds—led to a delay in the distribution of vol. 3 with the result that that volume was not distributed until 4 was ready for distribution also. Dr. Benjamin then referred to the Reichard fire in which admittedly a large part of the stock of vol. 6 of Illiger's *Magazin* was destroyed. He stated that he was aware of three copies in the United States, which he accepted as originals, but he took the view that this volume was not distributed (*i.e.* was not published) in 1807 or indeed at any date sufficiently early to permit of it being reviewed by Illiger in the *Allgemeine-Literatur Zeitung*. In other words, according to this argument, this volume was not distributed at least until the end of 1808. For it seemed obvious to Dr. Benjamin that, having regard to the fact that the *Allgemeine-Literatur Zeitung* was issued at intervals of three days only and that Illiger would be the first person in the world to have at his disposal for review purposes a copy of vol. 6 of his own *Magazin*, he would certainly have reviewed that volume if it had been published during the period in which he was writing reviews for the *Allgemeine-Literatur Zeitung*. Finally, Dr. Benjamin drew attention to the fact that the main text of vol. 4 of Latreille's *Gen. Crust. Ins.*, published in 1809, contained no reference to vol. 6 of Illiger's *Magazin*, while the addenda to the above volume of Latreille's work was full of such references. From this, Dr. Benjamin concluded that Latreille did not receive vol. 6 of Illiger's *Magazin* until about 1809 in time to enable him to include any references thereto in the main portion of vol. 4 of his own work.

12. It is now necessary to examine the various arguments summarised in the preceding paragraph. Dr. Benjamin, it should first be noted, attached

great importance to the slow and spasmodic way in which Illiger reviewed his own *Magazin* in the *Allgemeine-Literatur Zeitung*, and to the fact that vol. 6 of the *Magazin* was never reviewed in it at all. Neither of these points seems to me to have any significance. The *Allgemeine-Literatur Zeitung* was primarily concerned with the reviewing of separate works and not with that of journals; and, insofar as journals were reviewed, it would not cause me any surprise to find that the reviewer (in this case Illiger) exhibited a certain modesty in reviewing a journal (in this case Illiger's *Magazin*) of which he was himself the editor, except perhaps when he was short of other material and needed matter to fill up a space. The point made by Dr. Benjamin that in one set of Illiger's *Magazin* preserved in the United States volumes 3 and 4 are bound in a single volume in what appears to be a contemporary binding, cannot be accepted as meaning more than that the original owner of that copy found it convenient to bind up these two volumes in this way, since there are numerous copies in Europe which equally appear to be in contemporary binding though volumes 3 and 4 are separately bound. In any case, the way in which the volumes of this work were bound depended on the choice of the purchaser and not upon Illiger, since there was certainly in this case no such thing as a publisher's binding. As regards the Reichard fire, there is no doubt that part of the stock of vol. 6 of Illiger's *Magazin* was destroyed in this way, but, judging from the number of complete sets of Illiger's *Magazin* extant in Europe, a very considerable number of copies had either been sold before the fire took place or escaped destruction on that occasion. The evidence afforded by vol. 4 of Latreille's *Gen. Crust. Ins.* certainly shows almost beyond doubt that Latreille did not obtain a copy of vol. 6 of Illiger's *Magazin* until some time in 1809; but it throws no light whatever upon the only question of importance, namely the date on which that volume of Illiger's *Magazin* was published. Indeed, when it is remembered that the Napoleonic wars were in full swing during the period in question, it is perhaps surprising to find that a French naturalist was able as early as 1809 to secure a copy of a German publication within two years of its publication. As regards the suggestion that perhaps Illiger found himself in financial difficulties—a suggestion supported by no concrete evidence whatever—it must be observed that vol. 6 of Illiger's *Magazin* is dated 1807 on the title page and therefore that the type at least must have been set up in that year. This being so, the main cost, that of printing, had already been incurred in 1807, and, if Illiger had been in financial difficulties, he would certainly not have delayed the actual publication of the volume on that account. On the contrary, his first consideration would have been to secure that publication took place at the earliest possible moment in order that through sales he might recoup himself to some extent at least in respect of the expenditure already incurred on printing.

13. From the evidence given in the preceding paragraph, it will be seen that the arguments brought forward by Dr. Benjamin entirely fail to establish the proposition that Illiger's review of Hübner's plates was published before the synopsis of Fabricius' genera in vol. 6 of Illiger's *Magazin*. I have myself no doubt that the reason for this is the simplest one in the world, namely that Illiger—who was certainly a very careful worker—took good care not to refer in print to Fabricius' new genera until he had first published (in vol. 6 of his own *Magazin*) the summary of the characters of those genera taken from Fabricius' manuscript *Systema Glossatorum*. Further, there is, in my opinion, no reason to doubt that vol. 6 of Illiger's *Magazin* was published in 1807, the year given on the title page, on some date prior to 19th December of that year.

## III. The Need for Securing a Definite Decision.

14. While, as explained above, I have no doubt myself as to the correct interpretation of the evidence available, I realise that it is always possible for opinions to differ in a matter of this kind. It is necessary to examine first the issues at stake, and in the light of that examination to consider how best to secure a decision by which to stabilise the nomenclature of the ten genera concerned, and consequently of the very large number of species involved.

15. The first step required is to compare the position as it exists to-day on the basis of the recognition of Illiger's *Magazin* as the place of first publication of the ten genera in question with the position which would arise if the 19th December 1807 issue of the *Allgemeine-Literatur Zeitung* were recognised as the place of first publication of these names. This comparison gives the following results :—

### Danaidae.

### *Mechanitis* Fabricius.

Fabricius, 1807, *Mag. f. Insektenk.* (Illiger) **6** : 284.

As I have shown (Hemming, 1934, *Gen. Names hol. Butt.* **1** : 27), the type of this genus is *Papilio polymnia* Linnaeus, 1758.

If there were such a genus as *Mechanitis* Illiger, 1807 (*Allgem. Lit. Ztg, Halle*, [*Jena*] **1807**, 2 : 1180, 1181), there would be seven species from which the selection of the type might be made, namely : *Nereis dianasa* Hübner, [1806] ; *Nereis vesta* Hübner, [1807] ; *Nereis thelxiope* Hübner, [1806] ; *Nereis thamar* Hübner, [1806] ; *Papilio dido* Linnaeus, 1764 ; *Papilio julia* Fabricius, 1775 ; and *Papilio vanillae* Linnaeus, 1758. Every one of the above species is referable to the Nymphalidae, and the selection of any of them as the type of *Mechanitis* Illiger (if there were such a genus) would involve great confusion through the transfer of this well-known genus from the Family Danaidae to the Family Nymphalidae.

### *Euploea* Fabricius.

Fabricius, 1807, *Mag. f. Insektenk.* (Illiger) **6** : 280.

I have shown (Hemming, 1934, *Gen. Names hol. Butt.* **1** : 23–25) that the type of this genus under a strict interpretation of the Rules is *Papilio similis* Linnaeus, 1758, a species referable to the genus *Danaus* Kluk, 1802. It was for this reason that on that occasion I presented a case for consideration by the International Commission on Zoological Nomenclature that, acting in virtue of the Plenary Powers conferred upon them by the International Zoological Congress, they should suspend the Rules in this case and fix the type of this genus as *Papilio corus* Fabricius, 1793, thereby preserving this well-known generic name for use in the universally accepted sense. This proposal was endorsed by the International Committee on Entomological Nomenclature at its meeting at Madrid in 1935 and was accepted by the International Commission on Zoological Nomenclature at their meeting held in Lisbon in the same year.

If there were such a genus as *Euploea* Illiger, 1807 (*Allgem. Lit. Ztg, Halle*, [*Jena*] **1807**, 2 : 1180, 1181), there would be three species from which the selection of the type might be made, namely : *Lemnas* [sic] *cora* Hübner,

[1807] (= *Papilio core* Cramer, 1780, a species wholly distinct from, but occasionally confused with *Papilio corus* Fabricius, 1793); *Lemnas* [sic] *nemertes* Hübner, [1807]; and *Papilio genutia* Cramer, 1779. Of these species, the first two are referable to *Euploea* Fabricius as commonly understood, and the selection of either of these species as the type would therefore cause no disturbance of existing practice.

### Brassolidae.

#### *Brassolis* Fabricius.

Fabricius, 1807, *Mag. f. Insektenk.* (Illiger) **6** : 282.

The type of this genus, which is of special importance through providing the Family name Brassolidae, is *Papilio sophorae* Linnaeus, 1758, having been selected as such by Westwood in 1851 (*in* Doubleday, *Gen. diurn. Lep.* (2) : 341).

If there were such a genus as *Brassolis* Illiger, 1807 (*Allgem. Lit. Ztg, Halle*, [*Jena*] **1807**, 2 : 1181), there would be three species from which the selection of the type might be made, namely : *Hamadryas astina* Hübner, [1807]; *Najas themis* Hübner, [1807]; and *Potamis leonte* Hübner, [1807]. A fourth species, *Consul fabius* Hübner, [1807] was assigned to this genus by Illiger with a note of interrogation, but this species, being a *species inquirenda* from the standpoint of Illiger, is not eligible under the Code for selection as the type. Of the three species which are so eligible the two first belong to the Nymphalidae, while the third is a synonym of the type of *Morpho* Fabricius, 1807, the genus which gives its name to the Morphidae. The selection of any of these three species as the type of this genus would inevitably create the utmost confusion.

### Nymphalidae.

#### *Neptis* Fabricius.

Fabricius, 1807, *Mag. f. Insektenk.* (Illiger) **6** : 282.

The type of the very widely distributed and extremely well-known palaearctic and aethiopian genus *Neptis* Fabricius is, as I have shown (Hemming, 1934, *Gen. Names hol. Butt.* **1** : 86), *Papilio aceris* Esper, 1783.

If there were such a genus as *Neptis* Illiger, 1807 (*Allgem. Lit. Ztg, Halle*, [*Jena*] **1807**, 2 : 1180), it would be a monotypical genus with *Nereis eunice* Hübner, [1807] as type. This species is referable to the equally well-known American genus *Phyciodes* Hübner, [1819]. It is difficult to imagine greater confusion than that which would arise if the species now known as *Phyciodes* were transferred en bloc to the genus *Neptis*, as would be necessary in the circumstances discussed above.

#### *Apatura* Fabricius.

Fabricius, 1807, *Mag. f. Insektenk.* (Illiger) **6** : 280.

The type of this very well-known genus of European and Asiatic "Purple-Emperors" is, as I have shown (Hemming, 1934, *Gen. Names hol. Butt.* **1** : 76), *Papilio iris* Linnaeus, 1758.

If there were such a genus as *Apatura* Illiger, 1807 (*Allgem. Lit. Ztg, Halle*, [*Jena*] **1807**, 2 : 1181), it would be a monotypical genus with *Papilio amphinome*

Linnaeus, 1767, as the type. That species is the type, as I have shown (Hemming, 1934, *ibid.* **1** : 82–83) of *Hamadryas* Hübner, [1806], of which *Ageronia* Hübner, [1819], is a synonym. The existence of the genus *Apatura* Illiger, if such could be established, would therefore create very great confusion through involving the transfer of the name *Apatura* from an extremely well-known genus of butterflies confined to the Old World to an equally well-known group of butterflies confined to the New.

### Riodinidae.

### *Helicopis* Fabricius.

Fabricius, 1807, *Mag. f. Insektenk.* (Illiger) **6** : 285.

The type of this well-known genus is, as I have shown (Hemming, *Gen. Names hol. Butt.* **1** : 98), *Papilio cupido* Linnaeus, 1758.

If there were such a genus as *Helicopis* Illiger, 1807 (*Allgem. Lit. Ztg, Halle,* [*Jena*] **1807**, 2 : 1180), it would be a monotypical genus with *Papilio gnidus* Fabricius, 1787, as the type. This would involve no change since *gnidus* Fabricius is congeneric with *cupido* Linnaeus, the type of *Helicopis* Fabricius.

### *Nymphidium* Fabricius.

Fabricius, 1807, *Mag. f. Insektenk.* (Illiger) **6** : 286.

The type of *Nymphidium* Fabricius is, as I have shown (Hemming, 1934, *Gen. Names hol. Butt.* **1** : 102) *Papilio caricae* Linnaeus, 1758.

If there were such a genus as *Nymphidium* Illiger, 1807 (*Allgem. Lit. Ztg, Halle,* [*Jena*] **1807**, 2 : 1180), it would be a monotypical genus with *Limnas leucosia* Hübner, [1806] as type. This species is congeneric with *caricae* Linnaeus, and there would, therefore, be no change in existing practice, since *Nymphidium* Illiger would replace *Nymphidium* Fabricius.

### *Emesis* Fabricius.

Fabricius, 1807, *Mag. f. Insektenk.* (Illiger) **6** : 287.

The type of *Emesis* Fabricius is, as I have shown (Hemming, 1934, *Gen. Names hol. Butt.* **1** : 99) *Hesperia ovidius* Fabricius, 1793.

If there were such a genus as *Emesis* Illiger, 1807 (*Allgem. Lit. Ztg, Halle,* [*Jena*] **1807**, 2 : 1180), it would be a monotypical genus with *Limnas pharea* Hübner, [1807] as the type. This species is the type of the genus *Mesene* Doubleday, 1847, and the transfer of the very well-known name *Emesis* to the species now assigned to *Mesene* Doubleday would inevitably cause greater confusion than uniformity.

### Pieridae.

### *Pontia* Fabricius.

Fabricius, 1807, *Mag. f. Insektenk.* (Illiger) **6** : 283.

The type of this genus is, as I have shown (Hemming, 1934, *Gen. Names hol. Butt.* **1** : 130) *Papilio daplidice* Linnaeus, 1758.

If there were such a genus as *Pontia* Illiger, 1807 (*Allgem. Lit. Ztg, Halle,* [*Jena*] **1807**, 2 : 1180), it would be a monotypical genus with *Papilio hellica* Linnaeus, 1767, as the type. There would be no disturbance in existing practice, since *hellica* Linnaeus is congeneric with *daplidice* Linnaeus, and consequently *Pontia* Fabricius would fall as a synonym of *Pontia* Illiger.

HESPERIIDAE.

*Thymele* Fabricius.

Fabricius, 1807, *Mag. f. Insektenk.* (Illiger) **6** : 287.

The type of this genus is, as I have shown (Hemming, 1934, *Gen. Names hol. Butt.* **1** : 163) *Papilio tages* Linnaeus, 1758, the genus *Thymele* Fabricius being therefore a synonym of *Erynnis* Schrank, 1801, of which the same species is the type.

If there were such a genus as *Thymele* Illiger, 1807 (*Allgem. Lit. Ztg, Halle,* [*Jena*] **1807**, 2 : 1180), there would be three species from which the selection of the type could be made, namely : *Urbanus thraso* Hübner, [1807] (the type of *Eantis* Boisduval, 1836, a synonym of *Achlyodes* Hübner, [1819]); *Papilio proteus* Linnaeus, 1758 (the type of *Urbanus* Hübner, [1806]); and *Papilio niveus* Cramer, 1775 (the type of *Heliopetes* Billberg, 1820). In view of the history of the name *Thymele* Fabricius, it would be highly objectionable if the name *Thymele* (attributed to Illiger) were resurrected to supersede either *Achlyodes* Hübner or *Heliopetes* Billberg, and very considerable confusion would be created thereby. This difficulty could, however, be overcome by the selection of *Papilio proteus* Linnaeus as the type, since in that event *Thymele* Illiger would be nothing but a synonym of *Urbanus* Hübner, [1806].

16. The detailed information given in the preceding paragraph regarding the position which would arise if it could be established that the ten Fabrician names were published by Illiger in 1807 before their diagnoses by Fabricius were published in that year in Illiger's *Magazin* may be summarised as follows :—

(*a*) Maximum possible confusion caused by the transfer of well-known generic names from one Family to another.

(1) *Mechanitis* which would be transferred from the DANAIDAE to the NYMPHALIDAE;

(2) *Brassolis* (now the type genus of the BRASSOLIDAE) would be transferred either to the NYMPHALIDAE or to the MORPHIDAE, according to which of the available species were selected as the type;

(*b*) Very great confusion caused by the transfer within a given Family of a well-known generic name from one well-known genus to another;

(3) *Neptis* would be transferred from the extremely well-known European, Asiatic, and African genus universally so known to the equally well-known American genus invariably known as *Phyciodes* Hübner;

(4) *Apatura* would be transferred from the extremely well-known European and Asiatic genus universally so known to the very well-known American genus of which the correct generic name is *Hamadryas* Hübner, but which has hitherto usually been known by the later name *Ageronia* Hübner;

(5) *Emesis*, a very well-known genus in the RIODINIDAE, would be transferred from the group of about 40 species universally known by that name and would in future be the name for the genus now known by the name *Mesene* Doubleday;

(*c*) Considerable confusion caused unless particular care be taken in the selection of the type of the genus.

(6) *Thymele* would be resurrected from being a dead synonym and would replace either *Achlyodes* Hübner or *Heliopetes* Billberg, unless whoever fixed the type of the genus took care to select for this purpose the third available species, namely, *Papilio proteus* Linnaeus, thereby making *Thymele* a synonym of *Urbanus* Hübner.

(*d*) Cases where no confusion would arise.

(7) *Euploea* ; *Helicopis* ; *Nymphidium* ; and *Pontia*.

## IV. Action Recommended.

17. It has several times happened in different branches of zoology that the discovery of some long-forgotten work or some similar cause has led to grave disturbance in the nomenclature of the group concerned; that the necessary changes have however been introduced, and after a period of years have won for themselves a widespread though grudging acceptance; and that it was not until this stage had been reached that an effort was made to secure the approval of the International Commission on Zoological Nomenclature to the suppression of the work which was responsible for the original change in the names in question. Not unnaturally, belated efforts of this kind are apt to encounter opposition from workers, who would have been glad to see the suppression of the work in question if this could have been secured shortly after its original discovery but who are of opinion that, by reason of the delay which has occurred, the names have become so deeply embedded in the recent literature of the subject that a decision at this stage to return to the older practice would cause greater confusion than uniformity. Fortunately no such argument can be advanced in the case dealt with in the present paper, since no claim has ever been advanced that the Fabrician names in vol. 6 of Illiger's *Magazin* were anticipated by the names published by Illiger in the *Allgemeine-Literatur Zeitung*.

18. There is, I am confident, no worker in the Lepidoptera who would wish to see the complete change in the application of five of the best-known names of butterfly genera which (as I have shown in paragraph 15 above) would follow automatically, if it could be established that the names in question were first published by Illiger in the *Allgemeine-Literatur Zeitung*. It is, however, clearly of the first importance that in a case of this kind there should be no loop-hole for doubt whatever. This can only be secured by obtaining from the International Commission on Zoological Nomenclature an Opinion disposing of the matter once and for all. This might be effected in either of two ways, the first being for the Commission to suppress altogether the paper by Illiger in the *Allgemeine-Literatur Zeitung* under " Suspension of the Rules," the second being for the Commission to declare also under " Suspension of the Rules " that the paper in vol. 6 of Illiger's *Magazin* is to be taken as the first place of publication of the ten generic names which appeared also in the paper published in the *Allgemeine-Literatur Zeitung*. The first of these courses is open to the objection that it would go further than is either necessary or equitable, since it would involve the suppression also of the three generic names (*Hymenitis* [Illiger], *Eurybia* [Illiger], and *Lemonias* [Illiger]) which were undoubtedly first published by Illiger on the occasion in question. The second course is to be preferred, since it does neither more nor less than the circumstances of the case require; and this therefore is the course which I propose to recommend the International Commission to adopt.

# CORRECTION OF TYPE LOCALITY FOR TWO SPECIES OF MUTILLIDAE DESCRIBED BY FREDERICK SMITH (HYMENOPTERA)[1]

By Clarence E. Mickel, Ph.D., F.R.E.S.
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*Timulla* (*Trogaspidia*) *auroguttata* (Smith). (New combination.)

1855. *Mutilla auroguttata* Smith, *Cat. Hymen. Brit. Mus.* **3** : 52, female.
1897. *Mutilla auroguttata* Dalle Torre, *Cat. Hymen.* **8** : 14, female.
1903. —— *auroguttata* André, *Gen. Ins.* **11** : 72, female.
1913. *Mutilla repraesentans* Zavattari, *Arch. Naturg.* **79** (A) (3) : 29, female (*nec* Smith).
1933. *Timulla* (*Trogaspidia*) *repraesentoides* Mickel, *Ann. ent. Soc. Amer.* **26** : 411–413, female. **Syn. n.**
1933. *Timulla* (*Trogaspidia*) *repraesentoides* Mickel, *Lingnan Sci. J.* **12** : 309–310, female.
1935. *Timulla* (*Trogaspidia*) *repraesentoides* Mickel, *Trans. R. ent. Soc. Lond.* **83** : 254, female.

Corrected data for type specimen : Female, China : Hongkong (*Harrington*), in British Museum (Natural History).

The type locality for *auroguttata* is cited as " Brazil " in the original description and the type specimen in the British Museum (Natural History) is so labelled. The type specimen was examined by me in 1930 and a manuscript redescription was made. The species is obviously a member of the genus *Timulla* Ashmead. At the time the type was examined a detailed and intensive study of the genus *Timulla* of the New World and of the Islands of the Pacific Ocean had not yet been made. Later, in 1937, after studying the genus *Timulla* in both regions it was suspected from the description that *auroguttata* must be an oriental species of the subgenus *Trogaspidia* since (as has been pointed out, Mickel 1933a) the pale pubescent pattern of the second abdominal segment of the females consists of a pair of more or less circular spots in the subgenus *Trogaspidia* (Ethiopian and Oriental), and of linear spots in the subgenus *Timulla* (Nearctic and Neotropical). The type specimen of *auroguttata* has a pair of circular, pale pubescent spots on the second abdominal tergite. The suspicion was further strengthened by the fact that no specimens could be found in the abundant material of this genus from Brazil, which was available to me for study. I then wrote to Mr. Robert B. Benson, of the British Museum (Natural History), requesting that he examine the records of the Museum to determine if possible where the original lot of material that included the type specimen of *auroguttata* Smith came from. He replied, " I have examined the type of *Mutilla auroguttata* Smith and find that the registered number 53/61 refers to the general collection purchased from Stephens in 1853 from Hongkong, Brazil, etc., collected by Mr. Harrington. This being so, it is impossible to say where the specimen came from, because though labelled Brazil it may easily have been labelled wrongly, coming in a mixed collection like this."

After learning that a part of the material, which included the type of *auroguttata* came from Hongkong, I compared the redescription of the type made in 1930 with the key to the females of *Timulla* (*Trogaspidia*) in " The Mutillidae of Asia " (Mickel, 1933b) and found that the characters given in the description would run *auroguttata* in the key to *repraesentoides* Mickel. There are a number of examples of the latter species collected at Canton, China, determined by myself after comparison with paratypes from Formosa, and now

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in the University of Minnesota collection. These were compared in detail with the redescription and the conclusion reached that at least the Chinese specimens of *repraesentoides* Mickel were the same as *auroguttata* Smith. Later, three of the Canton, China, specimens determined by me as *repraesentoides*, and a paratype of *repraesentoides* from Formosa were sent to Mr. H. T. Pagden, who happened to be in England. He was kind enough to compare these specimens with Smith's type of *auroguttata*. He wrote that the specimens sent agree with the type, except in minor differences of size and punctation, which he outlined to me in detail.

My conclusion is that the Canton, China, specimens are undoubtedly the same as the type of *auroguttata* Smith, that the type specimen came from Hongkong, China, and was incorrectly labelled " Brazil." The type locality of *auroguttata* Smith should be corrected to read " Hongkong, China." I have stated before (Mickel, 1933b) that I am unable to find any fundamental differences between the Canton, China, specimens determined by me as *repraesentoides* and the type material of that species from Formosa. If it can be shown later that the Canton specimens are specifically or subspecifically distinct, then the name *repraesentoides* may be taken from synonymy and used for the Formosa material and the name *auroguttata* will be reserved for the Chinese material.

I am greatly indebted to Mr. Robert B. Benson and Mr. H. T. Pagden for their valuable assistance to me in unravelling this puzzle.

*Ephuta notabilis* (Smith). (New combination.)

1879. *Mutilla notabilis* Smith, *Descr. N. Sp. Hymen.* : 204, female.
1897. *Mutilla notabilis* Dalle Torre, *Cat. Hymen.* **8** : 67, female.
1903. *Ephutomorpha notabilis* André, *Gen. Ins.* **11** : 50, female.

Corrected data for type specimen : Female, SOUTH AMERICA, in British Museum (Natural History).

The original description of this species cites the locality as " Tasmania " and the type specimen is so labelled. When I examined the type in 1931 it was apparent immediately that the specimen was a representative of the genus *Ephuta* Say (= *Rhoptromutilla* André), which is known only from the New World. The type specimen also bears a label with the numbers " 63/43 " written on it. These numbers refer to the accession register of the British Museum (Natural History). On consulting the register it was found that " 63/43 " referred to a lot of specimens acquired in 1863 among which the only Hymenoptera were 49 specimens from South America. There can be no question that the type specimen has been mislabelled " Tasmania," and that the error was carried over into the original description.

It is impossible at the present time to be more specific regarding the geographical distribution of the species than simply " South America."

Following is a redescription of the type specimen :—

Female. Head and pronotum black, the mandibles, antennae, remainder of thorax, abdomen and legs, ferruginous; clypeus elevated posteriorly, the elevated margin serrate; first segment of flagellum equal in length to the second; first abdominal segment, seen from above, distinctly broader than long; front and vertex clothed with appressed, golden pubescence, sparse on the front, dense on the vertex; posterior margin of second tergite and tergites three to five each with a pair of large, transverse spots of dense, appressed, golden pubescence, the spots of each pair separated by black pubescence, the whole forming a pair of longitudinal, golden pubescent stripes extending from the posterior margin of the second tergite to the apex of the abdomen, separated by a longitudinal black stripe; pygidial area

glabrous, impunctate; length, 7·5 mm. *Head* black, except the mandibles, clypeus, antennal tubercles, and antennae, ferruginous; mandibles edentate at the tips and with a small tooth within near the tip; clypeus elevated posteriorly, the elevated margin serrate; antennal tubercles slightly separated; scape not at all carinate beneath, with fine, sparse punctures and sparse, ferruginous pubescence; first and second segments of flagellum equal in length; antennal scrobes not carinate above; front and vertex with sparse, moderate punctures, the latter becoming closer at the posterior margin, the genae with moderate, close, deep punctures; front and vertex clothed with appressed, golden pubescence, sparse on the front and dense on the vertex (the front may possibly be densely pubescent and simply rubbed in the type specimen); genae elevated into a slight tubercle beneath posterior to the insertion of the mandibles; posterior margin of genae rounded, not at all carinate; postero-lateral angles rounded; relative widths of head and thorax, 3·3–2·5. *Thorax* ferruginous, except the pronotum black, the black almost interrupted medially by dull ferruginous, and a pair of lateral, elongate spots on the propodeum indistinctly infuscated; dorsum clothed with sparse, short, ferruginous pubescence, except the pronotum and lateral margins of dorsum with short, sparse, inconspicuous, black pubescence; pleural areas of pronotum with sparse, appressed, pale pubescence; thorax throughout with moderate, dense, deep, contiguous punctures; humeral angles rounded; anterior margin of propodeal spiracles elevated to form a small conspicuous tubercle; scutellar scale entirely absent. *Abdomen* ferruginous, clothed with sparse, recumbent, black pubescence, except the second tergite with a pair of small, anterior, linear spots, broad lateral margins, and a pair of large, transverse spots at the posterior margin, tergites three to five, each with a pair of large, transverse spots, and lateral thirds of last tergite, all with dense, appressed, golden pubescence, and the sternites clothed entirely with sparse, pale golden pubescence; first segment, seen from above, distinctly broader than long, clothed above with erect and appressed, pale golden pubescence; second tergite with moderate, dense, contiguous punctures throughout; tergites three to five with moderately large, close punctures anteriorly; pygidial area glabrous, impunctate; first sternite with a high, longitudinal carina from base to apex; second sternite with large, close punctures, except the posterior margin almost glabrous, impunctate; sternites three to five with small, close punctures at the posterior margin; last sternite with a low, transverse ridge at the base. *Legs* entirely ferruginous, sparsely clothed with ferruginous pubescence; calcaria pale.

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